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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,648	12/10/2001	Noriyoshi Shida	Q67621	2208

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EXAMINER

JOLLEY, KIRSTEN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,648

Applicant(s)

SHIDA ET AL.

Examiner

Kirsten C. Jolley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 15, 23, 24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 15, 23, 24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments/Arguments

1. The rejections of claims 1-3, 15, and 23-24 over Plows et al. and JP 11-195250 A have been withdrawn in response to Applicant's amendments to independent claim 1 requiring that the supply pipe is positioned eccentrically from an axial center of the film forming jig so as to be positioned adjacent to an outer peripheral surface of the film forming jig for supplying the film forming liquid directly to the outer peripheral face of the film forming jig. Support for this limitation is provided by Figure 1A. However, the claims are newly rejected over the Decre reference (previously cited in the first Office action).

2. New claim 26 is rejected as set forth below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 is vague and indefinite because it is not clear what is meant by the phrase "the supply pipe is positioned *substantially outside* the film forming jig..." [emphasis added]. It is not clear what the metes and bounds of "outside" the jig are, nor does the specification define what is required by this limitation. For the purpose of examination, the phrase "substantially

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outside” has been broadly interpreted as requiring that the supply pipe is positioned outside of the jig (as opposed to being positioned on the inside of the jig).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Plows et al. (US 4,075,974).

Plows et al. discloses a film forming apparatus comprising a rotating unit (spindle 7) for rotating a substrate (disk 15), a film forming jig (distributor 31) which is placed on the disk substrate (col. 3, lines 21-32 and 50-66), and a supply pipe 27 for supplying a film forming liquid to the film forming jig. In the apparatus of Plows et al., the supply pipe is positioned outside the film forming jig (i.e., on top of the jig) before the rotation unit rotates to supply the film forming liquid to be in contact with an outer periphery face of the film forming jig, and after the supply pipe has supplied the film forming liquid, the rotation unit rotates to form a film (column 3). Applicant's specification teaches that the outer peripheral face of a conical jig is the downwardly-sloped surface 22b (as illustrated in Figures 7 and 8B and discussed on page 17).

7. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-195250 A.

JP '250 discloses a film forming apparatus comprising a rotating unit for rotating a substrate 3, a film forming jig 2 which is placed on the substrate, and a supply pipe 5 for supplying film forming liquid to the film forming jig. In the apparatus of JP '250, the supply pipe is positioned outside the film forming jig (i.e., on top of the jig) before the rotation unit rotates to supply the film forming liquid to be in contact with an outer periphery face of the film forming jig, and after the supply pipe has supplied the film forming liquid, the rotation unit rotates to form a film (see EPO abstract). The outer peripheral face of the jig illustrated in Figure 4 would be the upper, downwardly-sloping surface of the circular jig.

8. Claims 1-3, 15, 23-24, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Decre (US 2001/0018093).

Decre discloses a film forming apparatus comprising: a rotating unit for rotating a substrate (spin chuck 5); a film forming jig which is to be placed on the substrate (part of spin chuck 5 illustrated in Figure 1); a supply pipe for supplying a film forming liquid to the film forming jig, wherein the supply pipe is positioned eccentrically from an axial center of the film forming jig so as to be positioned adjacent to an outer peripheral surface of the film forming jig for supplying film forming liquid directly to the outer peripheral face of the film forming jig (paragraph [0034]); and wherein film forming liquid is supplied to the film forming jig when the rotation units rotates to form a film. It is known that the film forming liquid is supplied directly to the outer peripheral face of the film forming jig because Figure 1 illustrates that the film

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forming liquid 15 is contacting the jig 5, and rotation causes spreading of liquid outwards, not inwards.

As to claims 2-3, Figure 1 of Decre illustrates that the thickness of the jig is larger than that of the film, and the jig has a substantially cylindrical shape. As to claim 15, the substrate is an optical disk substrate.

As to claims 23-24, the outer peripheral face is a peripheral side surface of the film forming jig, and liquid is supplied directly to the peripheral side surface without being supplied to an upper surface of the jig (see Figure 1).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Decre.

Decre is applied for the reasons discussed above. In Decre's process, the supply pipe is positioned substantially outside the film forming jig to supply the film forming liquid to be in contact with an outer periphery face of the film forming jig, and the rotation unit rotates to form a film after the supply pipe has supplied the film forming liquid. Decre lacks a specific teaching of positioning the supply pipe outside the jig before the rotation unit rotates. It would have been obvious for one having ordinary skill in the art to have positioned the supply pipe at its desired

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starting position prior to supplying liquid and rotating the substrate so that the liquid is supplied in the proper area when the supplying step is started.

11. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Decre as applied to claim 1 above, and further in view of JP 11-195250 A.

Decre is applied for the reasons discussed above. Decre lacks a teaching of using a jig having a substantially conical shape, or a substantially truncated conical shape. JP '250 is cited for its teaching of the conventionality of substantially conical- or substantially truncated conical-shaped jigs for covering the hole in the center of an optical disk substrate during a spin coating operation. It would have been obvious for one having ordinary skill in the art to have used a different shaped jig in the process of Decre, such as a substantially conical- or substantially truncated conical-shaped jig, with the expectation of equivalent results since the shape of the jig in Decre's process would not affect the coating produced since the coating is supplied outside of the peripheral edge of the jig, and because such jigs are known and conventional in the art.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Decre as applied to claim 1 above, and further in view of Plows et al. (US 4,075,974).

Decre is applied for the reasons discussed above. Decre lacks a teaching of using a jig having a substantially conical shape, or a substantially truncated conical shape. Plows et al. is cited for its teaching of the conventionality of using a substantially conical-shaped jig for covering the hole in the center of a disk substrate during a spin coating operation. It would have been obvious for one having ordinary skill in the art to have used a different shaped jig in the

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process of Decre, such as a substantially conical-shaped jig, with the expectation of equivalent results since the shape of the jig in Decre's process would not affect the coating produced since the coating is supplied outside of the peripheral edge of the jig, and because such jigs are known and conventional in the art.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Tuesday to Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kirsten C Jolley
Primary Examiner
Art Unit 1762

kcj